FIG. 1

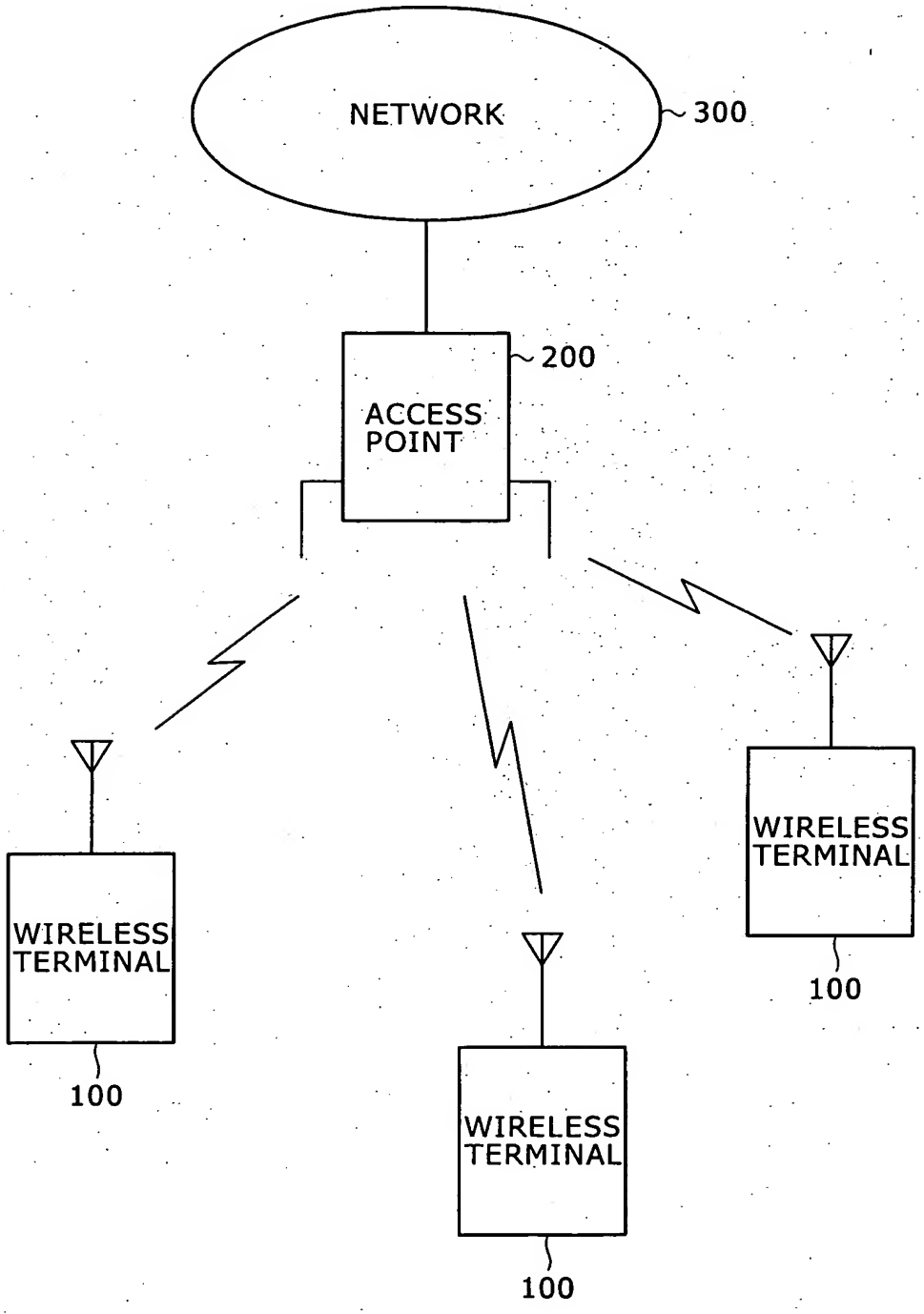

NETWORK
300
200
ACCESS POINT
WIRELESS TERMINAL
100
WIRELESS TERMINAL
100
WIRELESS TERMINAL
100

FIG. 2

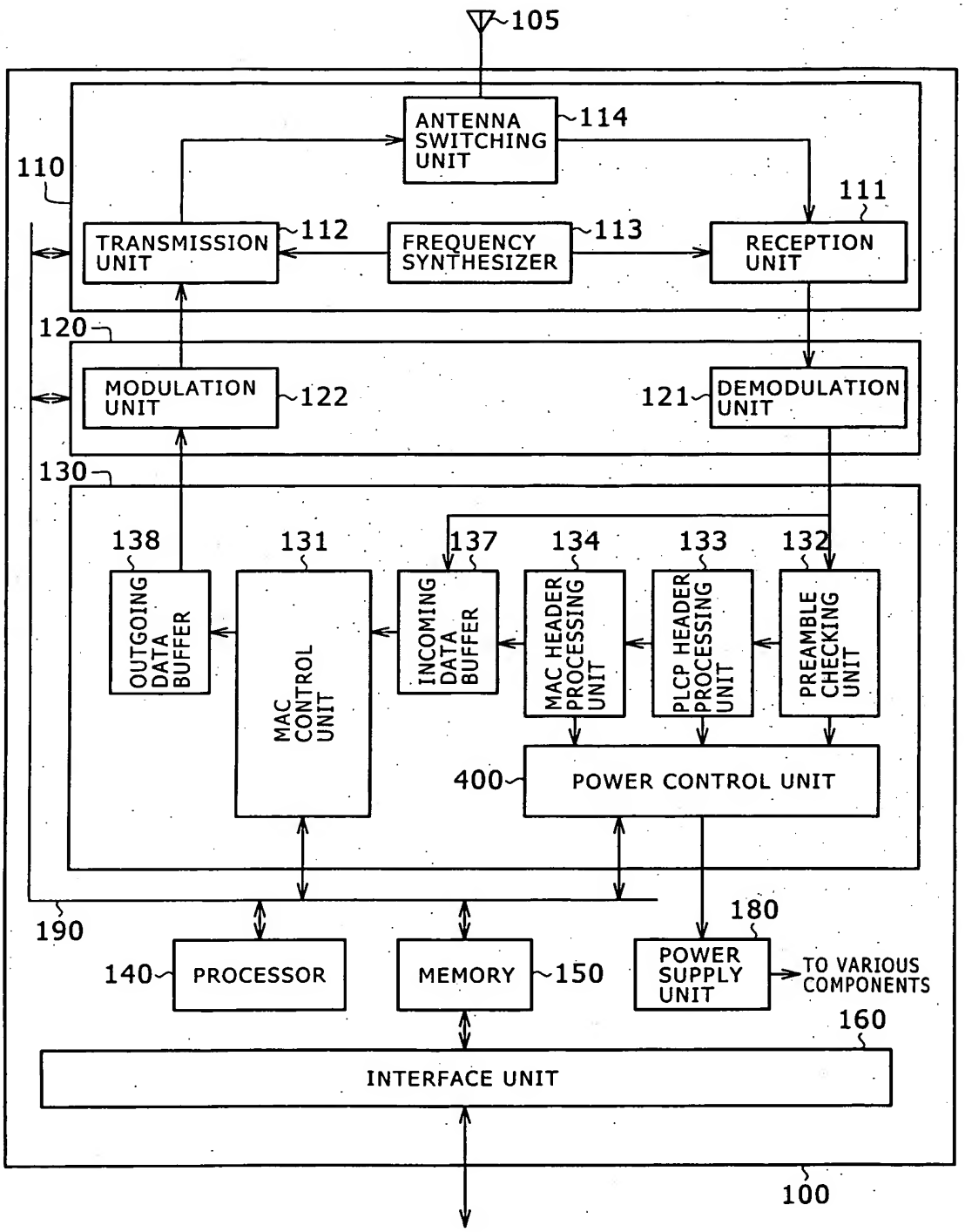

105
ANTENNA SWITCHING UNIT
114
110
111
TRANSMISSION UNIT
112
FREQUENCY SYNTHESIZER
113
RECEPTION UNIT
120
MODULATION UNIT
122
121
DEMODULATION UNIT
130
138
131
137
134
133
132
OUTGOING DATA BUFFER
MAC CONTROL UNIT
INCOMING DATA BUFFER
MAC HEADER PROCESSING UNIT
PLCP HEADER PROCESSING UNIT
PREAMBLE CHECKING UNIT
400
POWER CONTROL UNIT
190
180
140
PROCESSOR
MEMORY
150
POWER SUPPLY UNIT
TO VARIOUS COMPONENTS
160
INTERFACE UNIT
100

FIG. 3

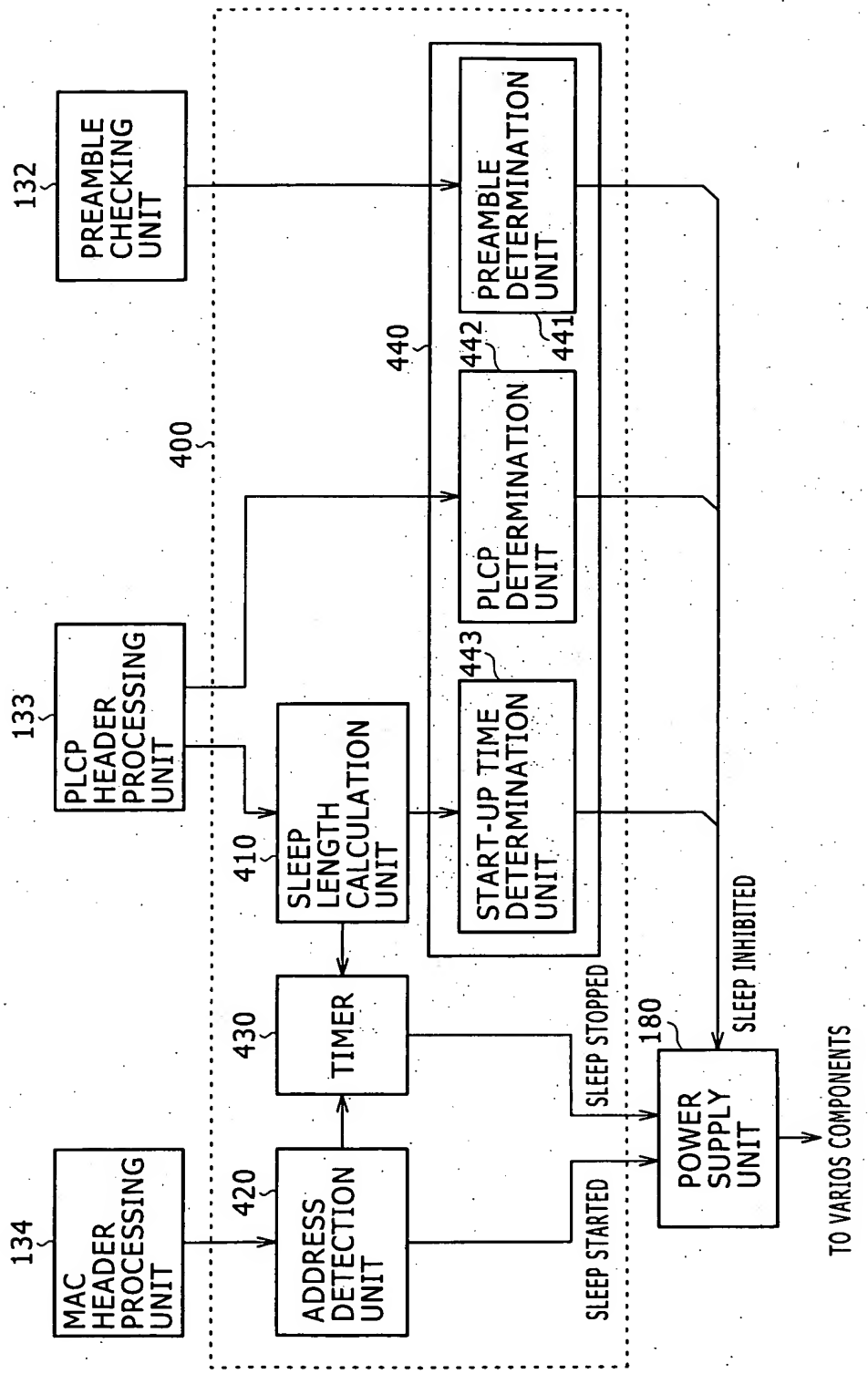

132
PREAMBLE CHECKING UNIT
400
440
PREAMBLE DETERMINATION UNIT
441
442
PLCP DETERMINATION UNIT
133
PLCP HEADER PROCESSING UNIT
443
START-UP TIME DETERMINATION UNIT
410
SLEEP LENGTH CALCULATION UNIT
430
TIMER
180
SLEEP STOPPED
SLEEP INHIBITED
POWER SUPPLY UNIT
TO VARIOS COMPONENTS
134
MAC HEADER PROCESSING UNIT
420
ADDRESS DETECTION UNIT
SLEEP STARTED

FIG. 4

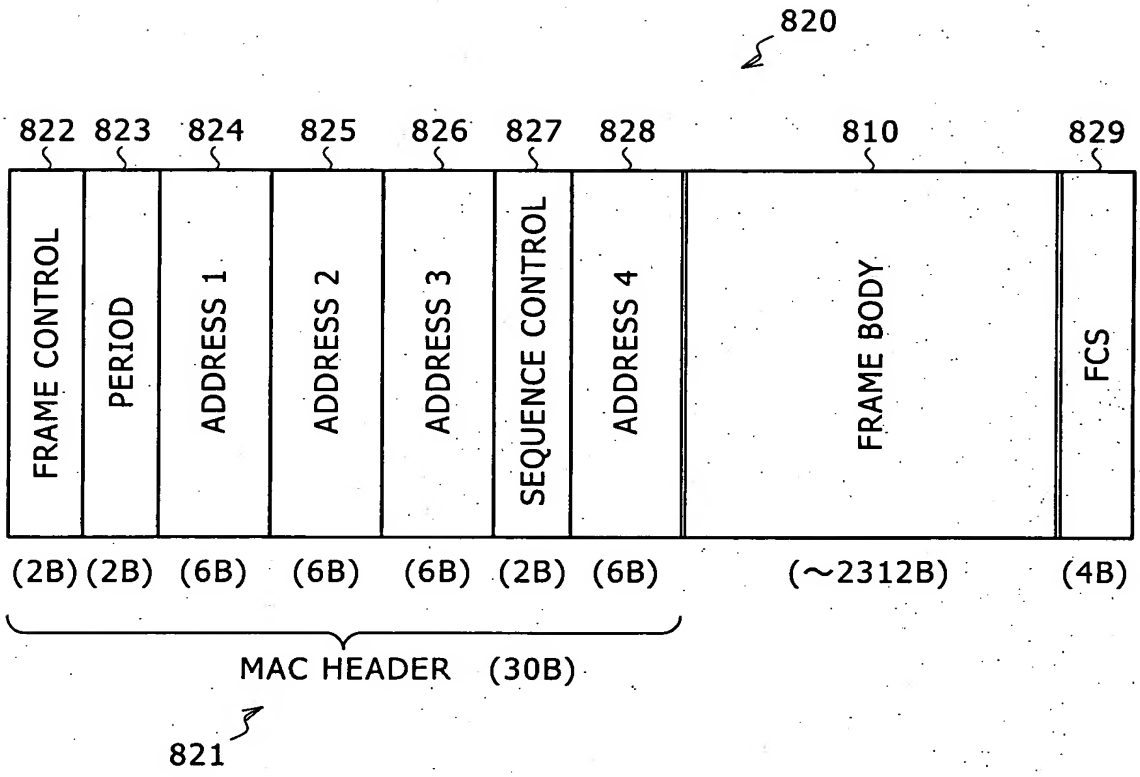

820
822
823
824
825
826
827
828
810
829
FRAME CONTROL
PERIOD
ADDRESS 1
ADDRESS 2
ADDRESS 3
SEQUENCE CONTROL
ADDRESS 4
FRAME BODY
FCS
(2B)
(2B)
(6B)
(6B)
(6B)
(2B)
(6B)
(~2312B)
(4B)
MAC HEADER (30B)
821

FIG. 5

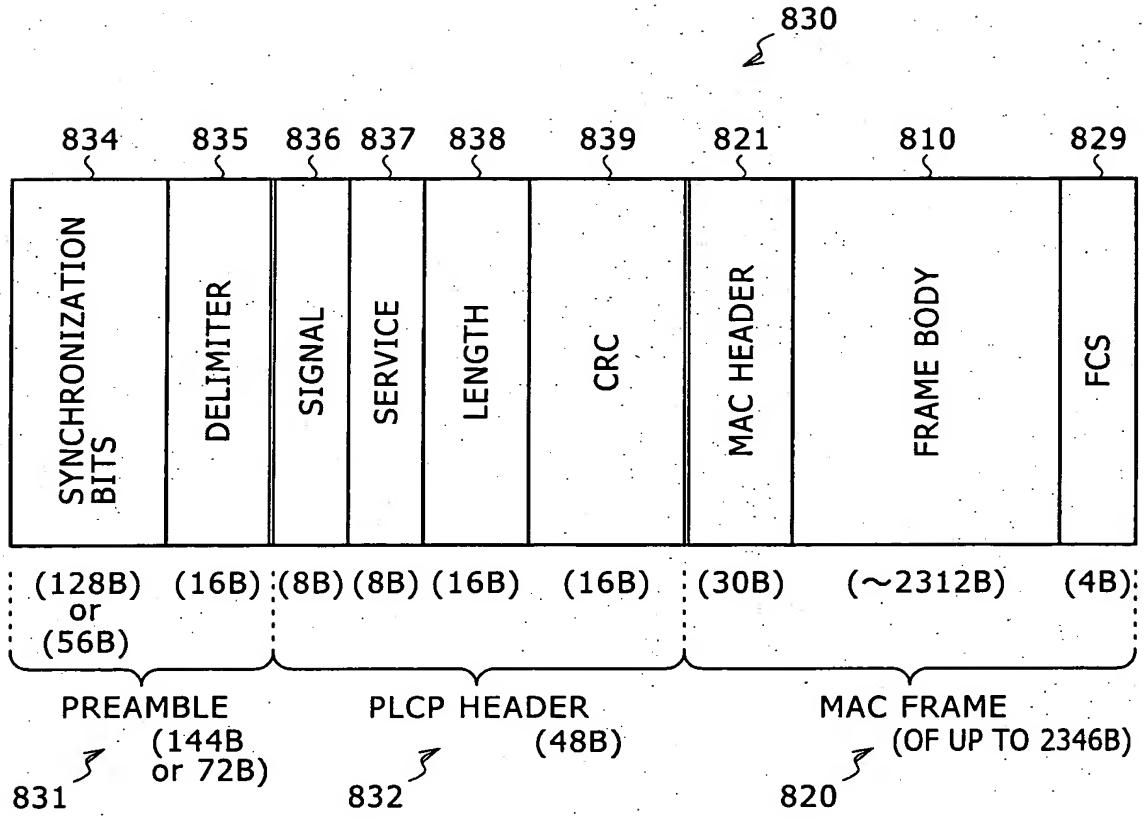

830
834
835
836
837
838
839
821
810
829
SYNCHRONIZATION BITS
DELIMITER
SIGNAL
SERVICE
LENGTH
CRC
MAC HEADER
FRAME BODY
FCS
(128B) or (56B)
(16B)
(8B)
(8B)
(16B)
(16B)
(30B)
(~2312B)
(4B)
PREAMBLE
(144B or 72B)
PLCP HEADER
(48B)
MAC FRAME
(OF UP TO 2346B)
831
832
820

FIG. 6

836 8361

SIGNAL	TRANSMISSION RATE
0x0A (0b00001010)	1Mbit/s
0x14 (0b00010100)	2Mbits/s
0x37 (0b00110111)	5.5Mbits/s
0x6E (0b01101110)	11Mbits/s

FIG. 7

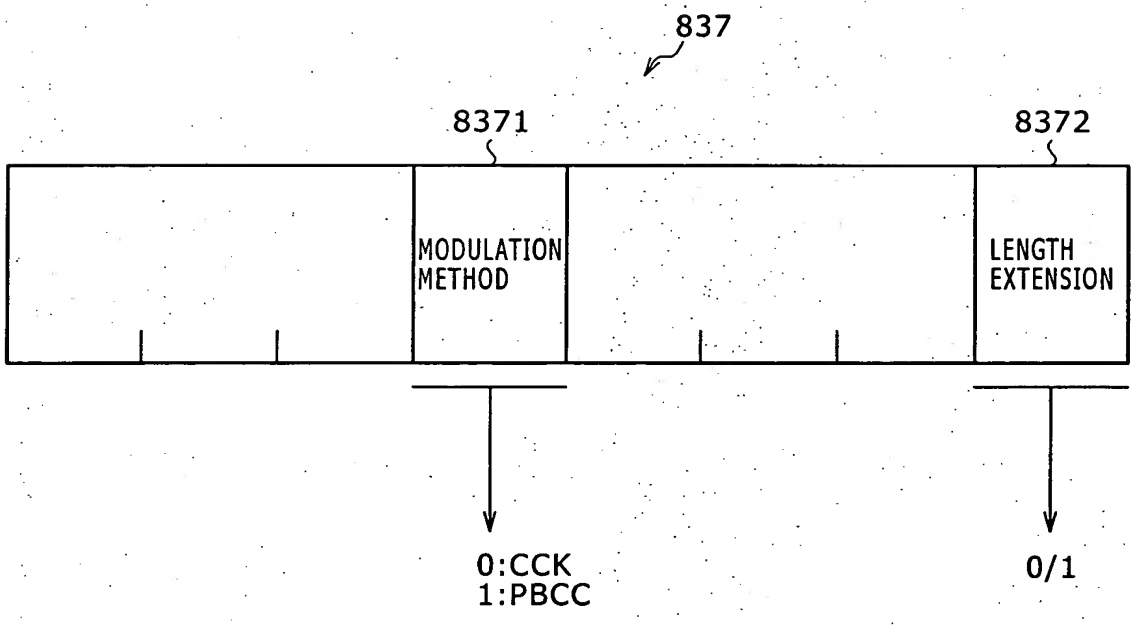

837
8371
8372
MODULATION METHOD
LENGTH EXTENSION
0:CCK
1:PBCC
0/1

FIG. 8

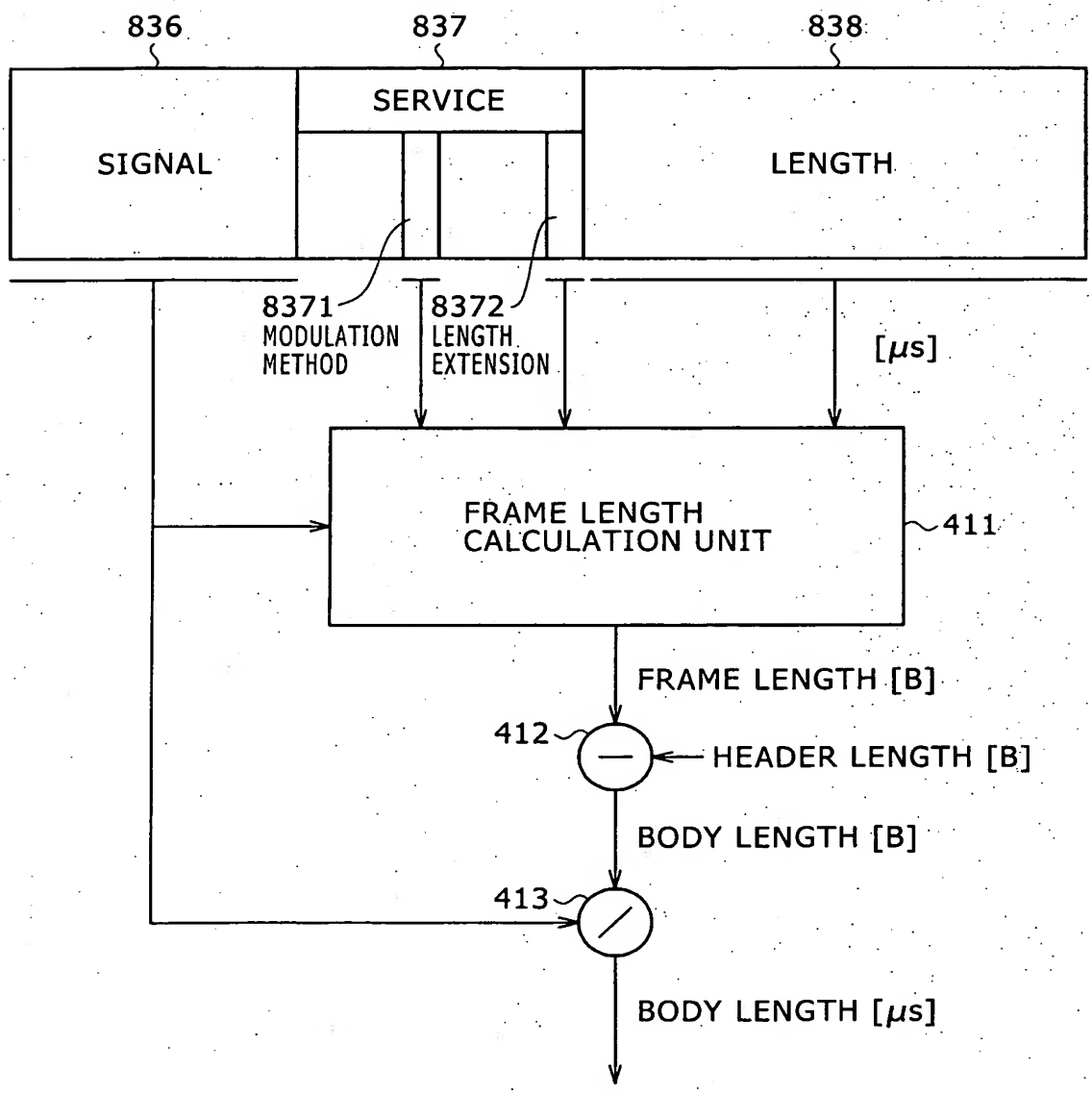

836
837
838
SERVICE
SIGNAL
LENGTH
8371
MODULATION METHOD
8372
LENGTH EXTENSION
[μs]
FRAME LENGTH CALCULATION UNIT
411
FRAME LENGTH [B]
412
HEADER LENGTH [B]
BODY LENGTH [B]
413
BODY LENGTH [μs]

FIG. 9

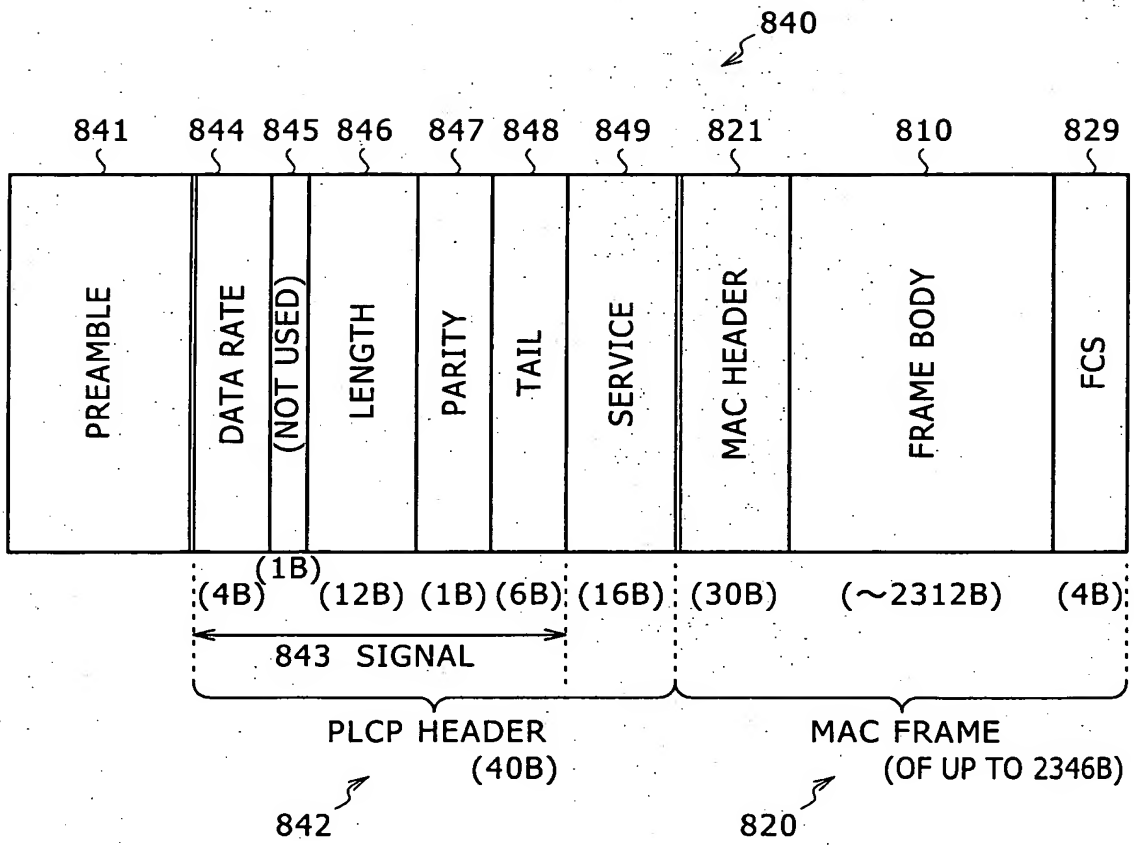

840
841
844
845
846
847
848
849
821
810
829
PREAMBLE
DATA RATE
(NOT USED)
LENGTH
PARITY
TAIL
SERVICE
MAC HEADER
FRAME BODY
FCS
(4B)
(1B)
(12B)
(1B)
(6B)
(16B)
(30B)
(~2312B)
(4B)
843 SIGNAL
PLCP HEADER
(40B)
MAC FRAME
(OF UP TO 2346B)
842
820

FIG. 10

844 8441 8442 8443

DATA RATE	MODULATION METHOD	CODING RATE	TRANSMISSION RATE
0b1101	BPSK	1/2	6Mbits/s
0b1111	BPSK	3/4	9Mbits/s
0b0101	QPSK	1/2	12Mbits/s
0b0111	QPSK	3/4	18Mbits/s
0b1001	16QAM	1/2	24Mbits/s
0b1011	16QAM	3/4	36Mbits/s
0b0001	64QAM	2/3	48Mbits/s
0b0011	64QAM	3/4	54Mbits/s

FIG. 11

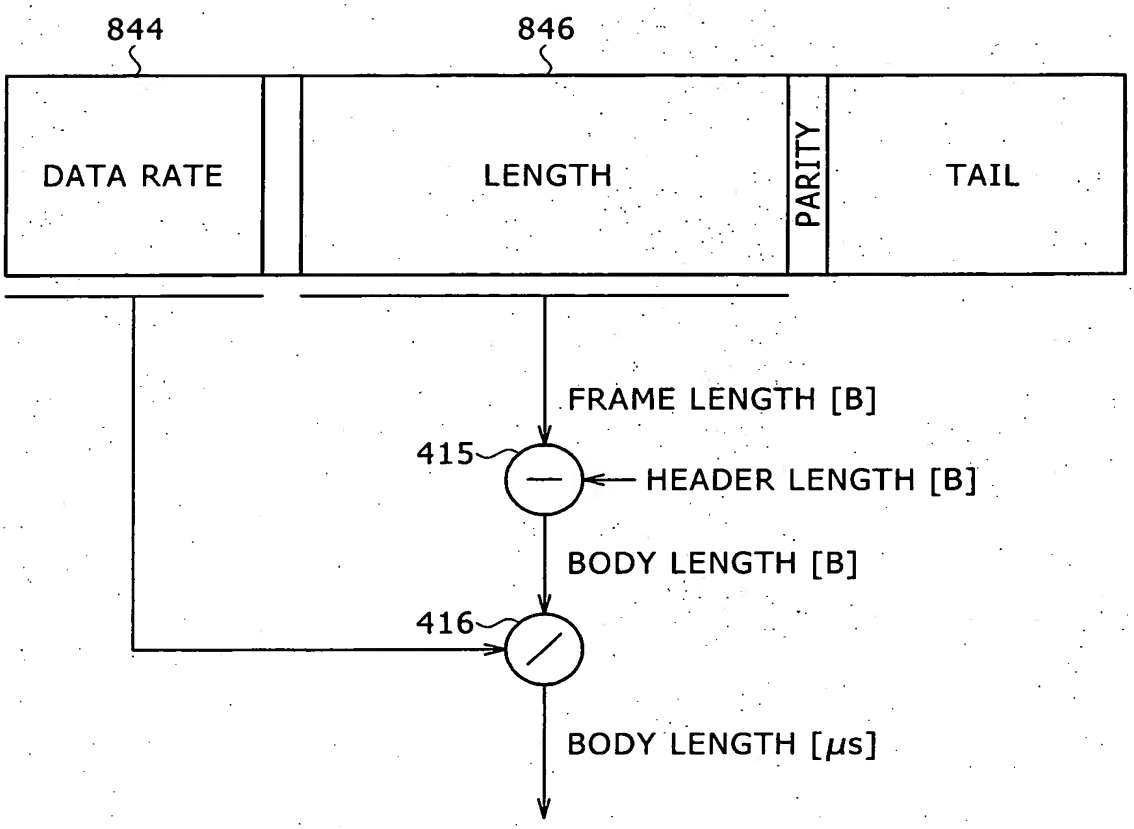

844
846
DATA RATE
LENGTH
PARITY
TAIL
FRAME LENGTH [B]
415
HEADER LENGTH [B]
BODY LENGTH [B]
416
BODY LENGTH [μs]

FIG. 12A

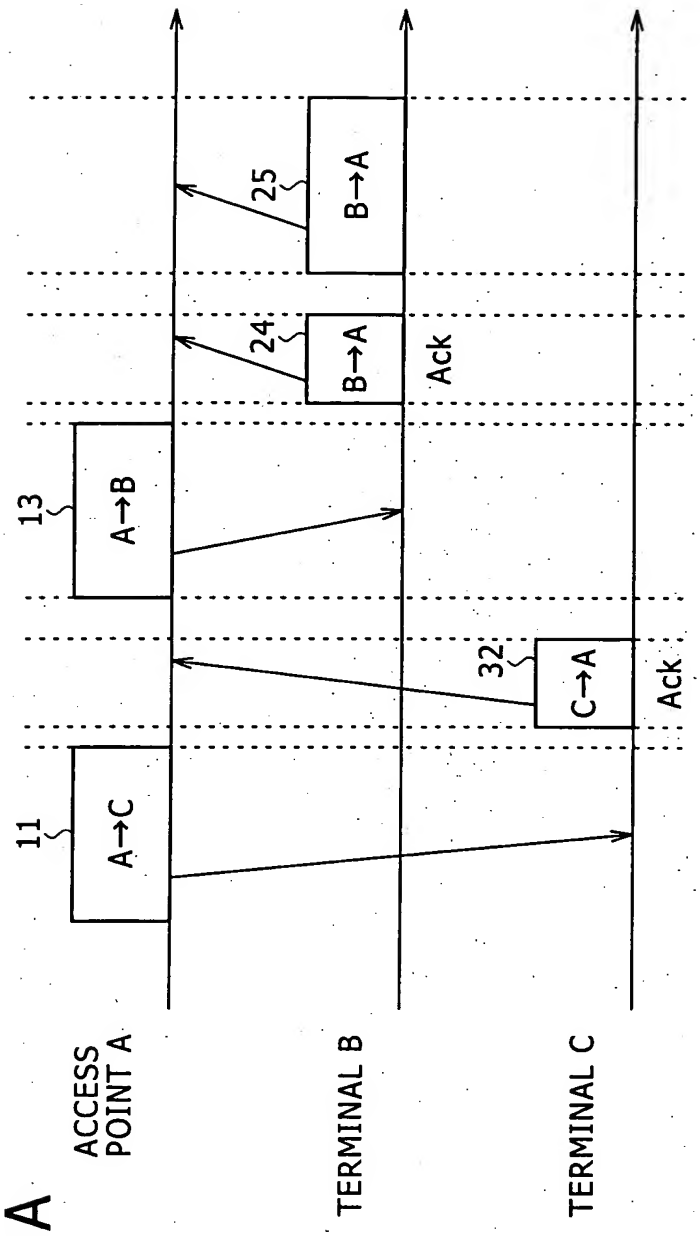


FIG. 12B

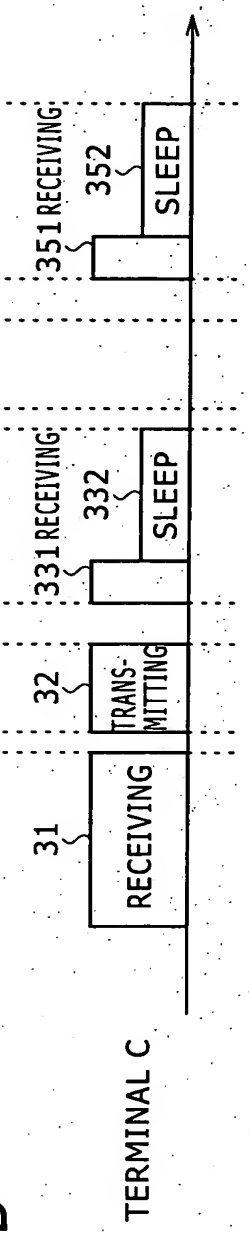


FIG.13

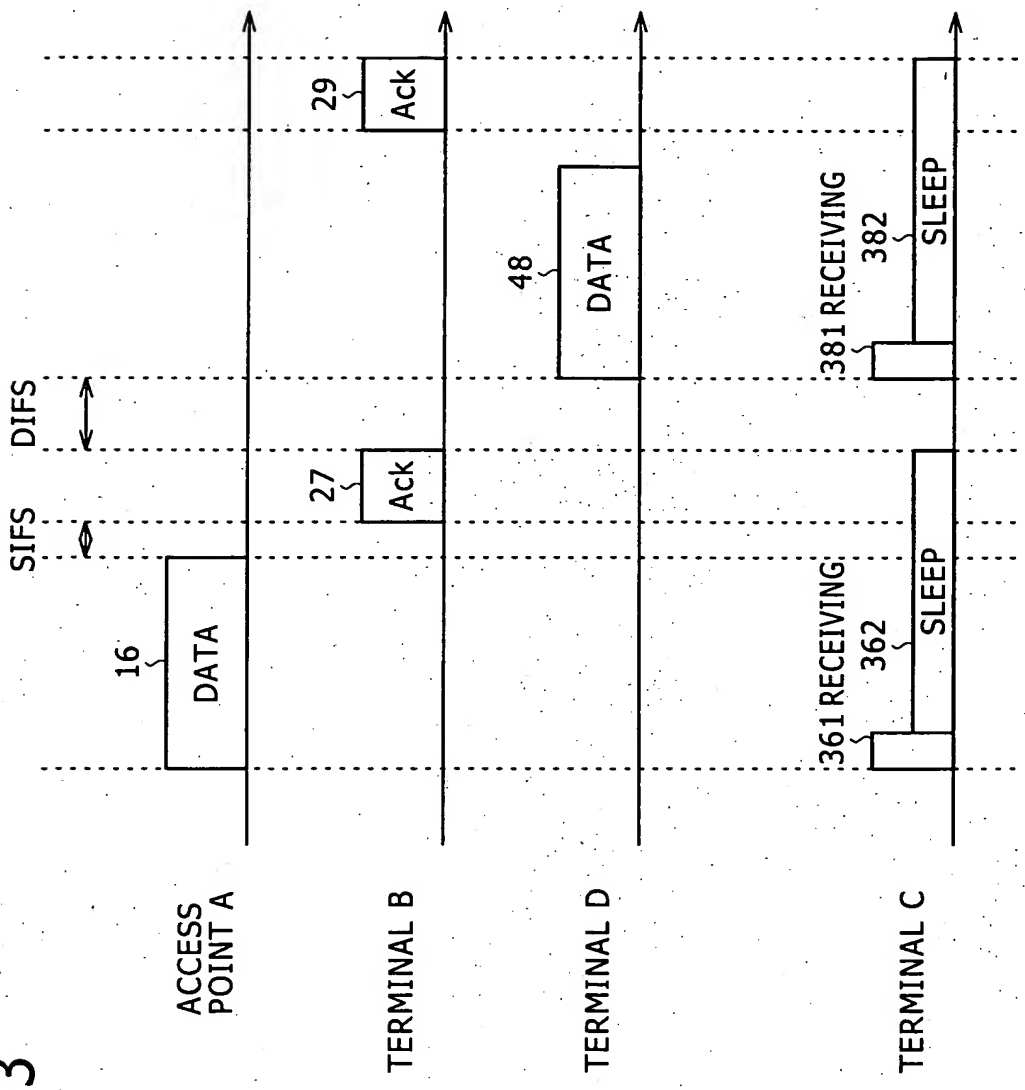

ACCESS POINT A
TERMINAL B
TERMINAL D
TERMINAL C
DIFS
SIFS
16
DATA
27
Ack
29
Ack
48
DATA
361 RECEIVING
362
SLEEP
381 RECEIVING
382
SLEEP

FIG. 14

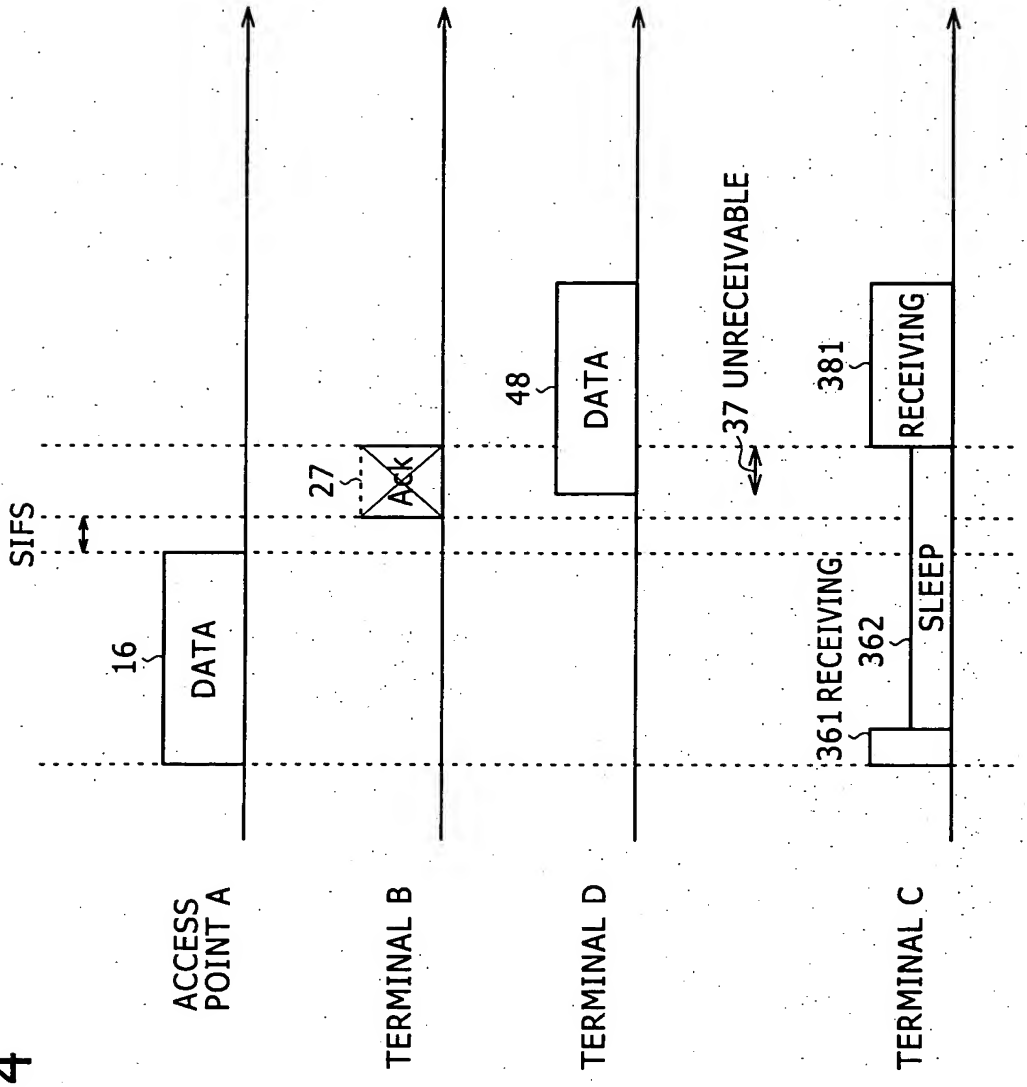

ACCESS POINT A
TERMINAL B
TERMINAL D
TERMINAL C
SIFS
16
DATA
27
ACK
48
DATA
37 UNRECEIVABLE
381
RECEIVING
361 RECEIVING
362
SLEEP

FIG. 15

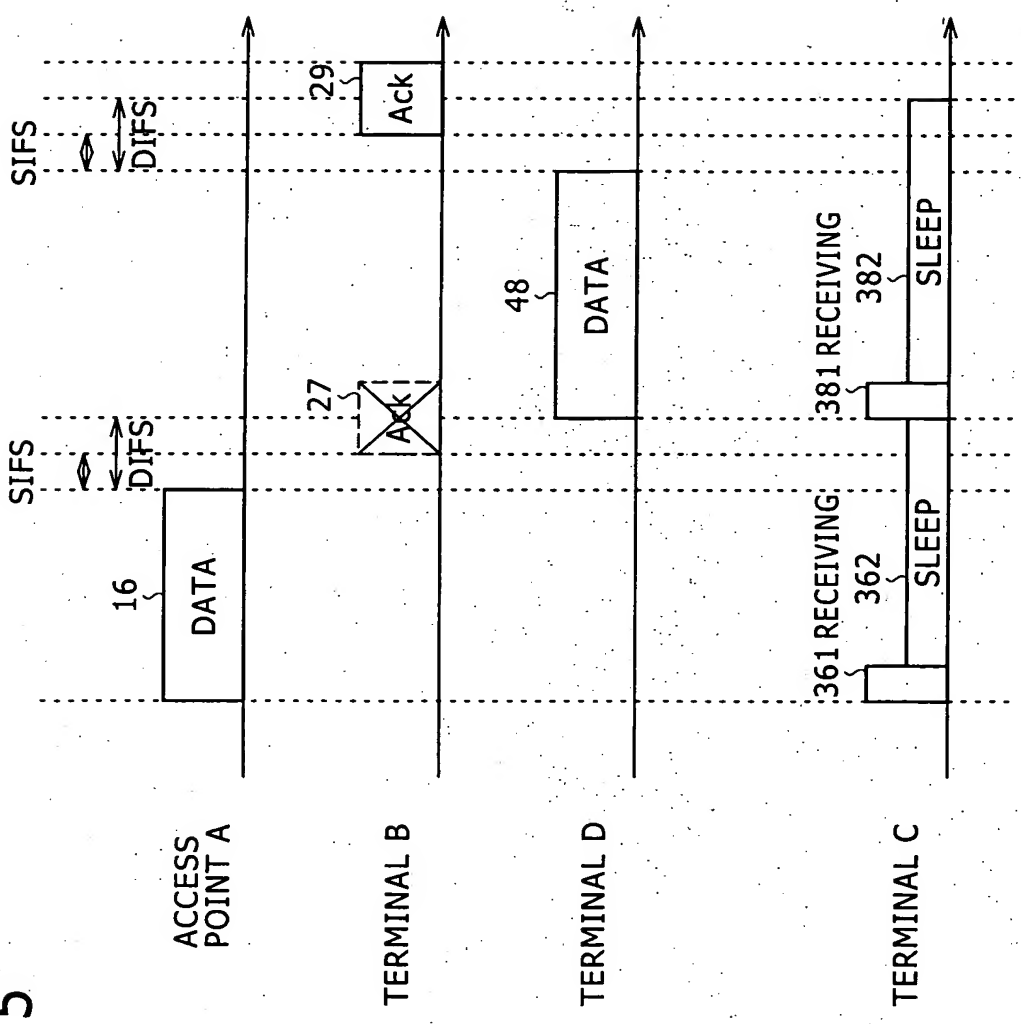
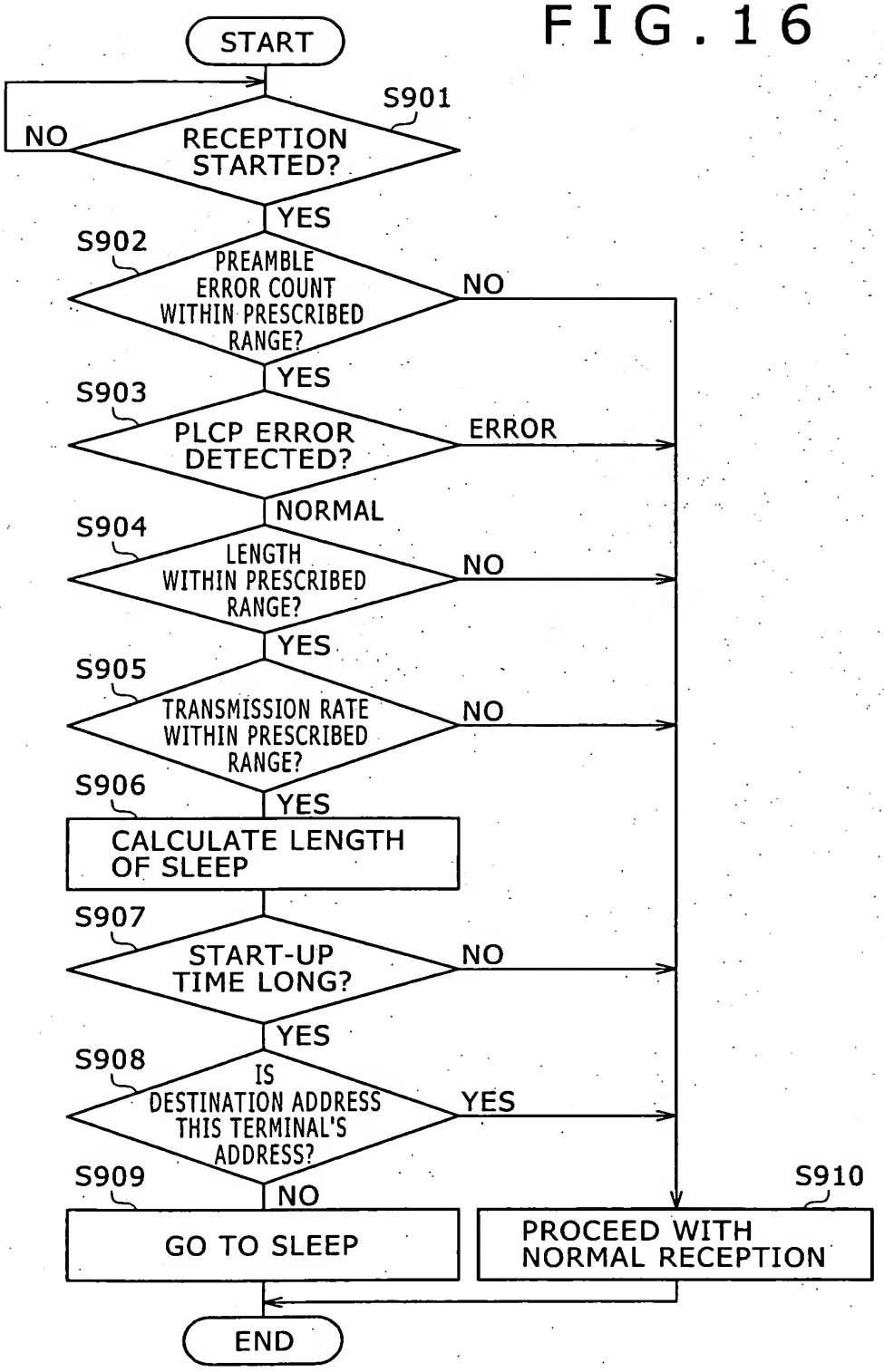

ACCESS POINT A
TERMINAL B
TERMINAL D
TERMINAL C
SIFS
DIFS
16
DATA
27
Ack
29
Ack
48
DATA
361 RECEIVING
362
SLEEP
381 RECEIVING
382
SLEEP

FIG. 16


START
S901
RECEPTION STARTED?
NO
YES
S902
PREAMBLE ERROR COUNT WITHIN PRESCRIBED RANGE?
NO
YES
S903
PLCP ERROR DETECTED?
ERROR
NORMAL
S904
LENGTH WITHIN PRESCRIBED RANGE?
NO
YES
S905
TRANSMISSION RATE WITHIN PRESCRIBED RANGE?
NO
YES
S906
CALCULATE LENGTH OF SLEEP
S907
START-UP TIME LONG?
NO
YES
S908
IS DESTINATION ADDRESS THIS TERMINAL'S ADDRESS?
YES
NO
S909
GO TO SLEEP
S910
PROCEED WITH NORMAL RECEPTION
END